Sunbird Solar Ltd.

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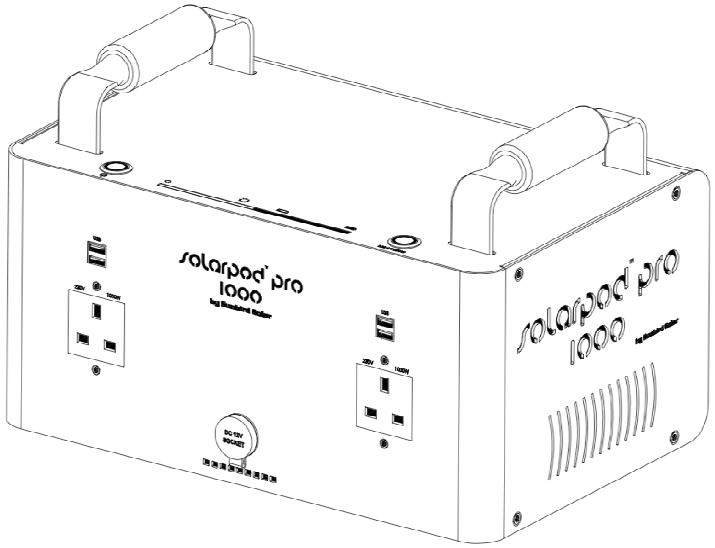
solarpod™ pro 1000

by Sunbird Solar

PORTABLE SOLAR GENERATOR
USER MANUAL



Solarpod™ Pro 1000 by Sunbird Solar

Sunbird Solar Solarpod™ Pro 1000 is a remarkably light 16.5kg/36.3lb. portable power center with a full, 960 watt-hours of rechargeable power to bring portable energy to your home, office, or job site. Whether as a backup power supply for areas experiencing power outages due to natural disaster or as a mobile generator for a campsite, the Solarpod™ Pro 1000 powers your world. Charge it from available electricity or operate self-sufficiently using one of the Sunbird Solar Ltd. Solar Panels. No set-up is required, just plug in and go. Includes an AC charger and a cable to connect directly to a solar panel. The internal $LiFePO_4$ battery and energy management system is the one most advanced on the market with a long life cycle and reliable performance.

Section 1

IMPORTANT WARNINGS AND SAFEGUARDS

Read all instructions thoroughly before operating this unit to avoid injury to self or property and avoid damage to the unit. Keep instructions handy for reference during use.

DANGER

ENERGIZED EQUIPMENT – ELECTRICAL SHOCK AND EXPLOSION HAZARDS

- Do Not submerge in liquid or operate in wet environments. Device is not waterproof or water resistant. Operate in dry environments only.
- Do Not operate in flammable or explosive environments
- Do Not operate if the unit is damaged in any way including loose electronics or if charging cords are frayed and wires are exposed.
- Do Not place foreign objects inside of the power outlets.
- Do Not disassemble. There are no user serviceable parts. Contact manufacturer for all repairs.

CAUTION

- **Consult your physician before using with CPAP devices or other non-life support medical equipment.**
- Administer close supervision when operating around children or persons with disabilities.
- Do Not use any devices over 1000W for risk of damage to the inverter.
- Do Not block the air inlets.
- Not recommended for use or storage below 14ºF (-10ºC) or above 120ºF (49ºC). If using above 120ºF, place out of direct sunlight to prevent overheating.

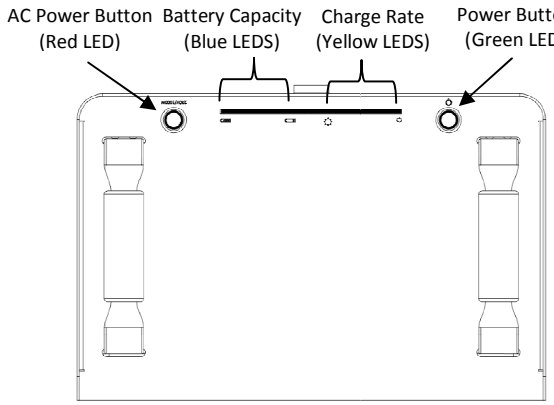
Section 2

WARRANTY

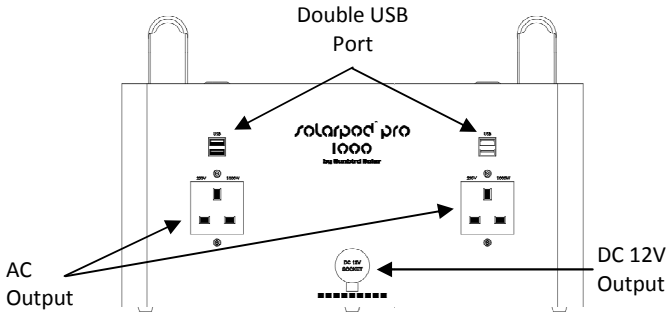
- Solarpod™ Pro 1000 is only serviceable by an authorized repair facility. Do not dismantle. Warranty is void if the device is opened by unauthorized personnel. For technical support, contact your local distributor or go to www.sunbird-solar.com/technical_support.
- Registration for the limited warranty described on Sunbird Solar Ltd. website can be completed by going online to www.sunbird-solar.com/warranty_registration. This is the sole and exclusive warranty provided by Sunbird Solar Ltd. In no event will Sunbird Solar Ltd. be liable for any indirect or incidental damages or losses of any kind arising from or as a result of misuse or abuse, or the incorrect installation or operation of the product.

Section 3

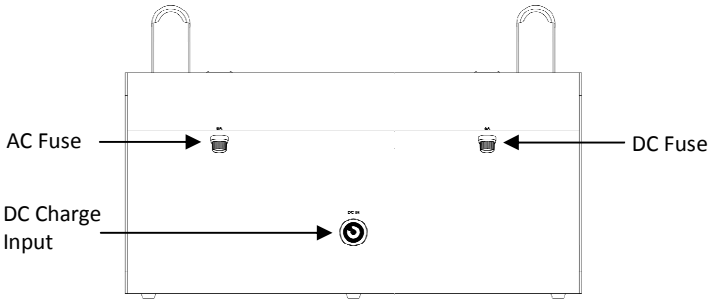
PARTS IDENTIFICATION



Top: Display & Controls



Front: Output Side



Back: Input Side

Section 4

CHARGING

Fully charge before first use. For maximum efficiency, charge after each use or every 2 months if it is being stored. Failure to properly charge as listed below could damage the unit and affect performance. CAUTION: ONLY USE CHARGERS PROVIDED WITH THE SOLARPOD™ PRO 1000 OR DAMAGE MAY OCCUR.

Charging Indicator - Indicates Charging Rate

1. Five yellow LEDs represent the charging rate when using any of the methods of charging below.
2. Each yellow LED equals approximately 20% charge rate. This will help you to position a solar panel in the best angle to the sun. If the Solarpod™ Pro 1000 is plugged into a 100V – 240VAC or 12V - 24VDC power source, all 5 LEDs should be illuminated.

Battery Indicator - Indicates Battery Capacity Level

1. Five blue LEDs represents the current battery capacity.
2. Each blue LED represents approximately 20% full.

Solar Charging (recommended Sunbird Solar 120W Solar Panel)

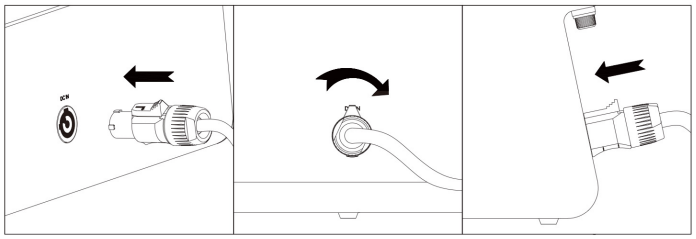
1. The Solarpod™ Pro 1000 has built-in battery protection and does not require a solar charge controller.
2. Place the solar panel in direct sun.
3. Connect the solar charging cable (included) male pin tip to the DC IN port on the Solarpod™ Pro 1000. Connect the MC4 (+) and (-) tips to the solar panel.
4. Adjust the solar panel so that it is directly facing the sun. Charging will begin immediately and the yellow charging LED indicators will illuminate.
5. To ensure full battery charge, continue charging for 1 additional hour.
6. To maximize battery cycle life, disconnect when Solarpod™ Pro 1000 is fully charged.

AC Wall Charging (Adapter Included)

1. Connect the male pin tip of the AC Wall Charger into the DC IN port of the Solarpod™ Pro 1000 and then plug the other end into an electrical outlet.
2. The charging indicator on the AC Wall Charger will illuminate red when charging is in process and green when the Solarpod™ Pro 1000 has reached a full charge.
3. The yellow charging LED indicators will also illuminate.
4. To ensure full battery charge, continue charging for 1 additional hour after Solarpod™ Pro 1000 is fully charged.
5. There is no need to disconnect AC Wall Charger when charging is complete.

Connecting Charging Lines to the Solarpod™ Pro 1000

1. Align head tabs with DC IN socket on back of unit.
2. Turn head clockwise until the silver lock tab is at top and press lock tab toward unit.
3. To unplug charging head, follow the above steps in reverse order.



1. Align Tabs 2. Turn Clockwise 3. Press in Lock

Section 5

OPERATING INSTRUCTIONS

Once charged, the Solarpod™ Pro 1000 is ready to use right out of the box. No set up is required. All outputs may be used simultaneously. Check your device's specifications to make sure they are compatible with the Solarpod™ Pro 1000.

ON/OFF Button - When on, the switches surrounding LED light will turn green.

AC Power Button - When on, the switches surrounding LED light will turn red.

USB Operation

- Turn the ON/OFF BUTTON on.
- Plug in your device's USB power or charging cable.
- A combined 5V/2A maximum output is available between the two ports (when fully charged).
- Disconnect and power off when not in use.

AC Operation (max 1000W output)

- Press the AC power button to activate the inverter.
- Plug in your device's power or charging cable into the electrical AC socket.
- Disconnect and turn off the power when not in use.
- CAUTION: CHECK CAREFULLY THAT THE VOLTAGE RATING OF YOUR APPLIANCE MATCHES THE VOLTAGE RATING OF THE Solarpod™ Pro 1000 UNIT YOU HAVE PURCHASED.
- CAUTION: Using devices rated higher than 900-1000W and operated for more than 10 minutes may cause the Solarpod™ Pro 1000 to overheat and shut down. Once it has cooled the circuit will reset and the Solarpod™ Pro 1000 will be operational again.

Advantages of a Pure Sine Wave Inverter

- A pure sine wave inverter produces a nearly perfect sine wave output (less than 3% total harmonic distortion) that is essentially identical to utility-supplied grid power.
- Eliminates electrical interference, overheating and noise.
- Computer crashes and other appliance operational glitches can be avoided.
- Inductive loads such as variable-speed motors and microwave ovens can be used, and supports in running them quieter and cooler.
- Some appliances and sensitive electronics will simply not work properly without pure sine wave power.
- Reduces audible and electrical noise in fans, fluorescent lights, magnetic circuit breakers and electronic gears.

12V DC Operation (Max 15A output)

- Turn the ON/OFF BUTTON on.
- Plug in your 12V device's power or charging cable into the 12V Vehicle Socket.
- Neither power button need to be on.
- Disconnect and power off when not in use.

Section 6

CARE AND MAINTENANCE

- Dust regularly with a clean dry cloth to prevent dust and dirt from building up on the vents and power inputs/outputs. Store in a clean, dry place when not in use.
- Charge after each use, every 30-60 days, and before storing so it is ready to use when needed.
- Solarpod™ Pro 1000 is only serviceable by an authorized repair facility. Do not dismantle. Warranty is void if the device is opened by unauthorized personnel. For technical support, contact your local distributor or go to www.sunbird-solar.com/technical_support for online technical support.

Section 7

TROUBLESHOOTING

If our Solarpod™ Pro 1000 fails to operate as specified, follow these troubleshooting steps to correct the issue. If you still experience issues, please contact your local distributor or go to www.sunbird-solar.com/technical_support for online technical support.

Charging Issues

- Ensure all cords are connected securely.
- Check power indicators on chargers and the Solarpod™ Pro 1000 to verify they are operating.
- If using a solar panel to charge, ensure it is correctly positioned in direct sunlight.
- Check that the fuses on the Solarpod™ Pro 1000 have not blown.

12V DC Output Fails

- Check the battery indicator (blue LED strip) to see if the Solarpod™ Pro 1000 has sufficient battery charge available. If not, follow the charging steps previously described.
- Check to make sure that the 12V DC circuit protection fuse is not blown by removing the 12A fuse housing cap. Inspect the fuse and replace if needed with the same size fuse.
- Check the 12V DC output socket for obstructions or other visible damage.
- Verify the device being charged is not damaged.

AC Output Fails

- Check the battery indicator (blue LED strip) to see if the Solarpod™ Pro 1000 has sufficient battery charge available. If not, follow the charging steps previously described.
- Ensure the AC power button is on and the red light is on.
- Check to make sure that the AC circuit protection fuse is not blown by removing the 6A-6.3A or 8A fuse housing cap and then removing the 6A-6.3A or 8A fuse. Inspect the fuse and replace if needed with the same size fuse (See Section 8 for AC fuse reference chart).
- Check the AC output socket for obstructions or other visible damage.
- Verify the device being charged is not damaged.

USB Output Fails

- Check the battery indicator (blue LED strip) to see if the Solarpod™ Pro 1000 has sufficient battery charge available. If not, follow the charging steps previously described.
- Ensure the ON/OFF power is on and the green light is on.
- Check the USB port for obstructions or other visible damage.
- Verify the device being charged is not damaged.

Section 8

TECHNICAL INFORMATION

SPECIFICATIONS	
Battery Type	LiFePO4 (lithium iron phosphate) 24V, 40Ah
Battery Lifespan	2000+ cycles (cycle = charge and discharge)
Protection Circuit	Built-in over voltage, self discharge and short circuit protection
Fuses (replaceable)	6A OR 8A fuse (AC outlet) and 12A fuse (12V DC outlet) (See fuse chart below)
DC Input Power	29V/10A
AC Wall Charger	Input: 100-240V, 50/60Hz, 300VA Output: 29VDC, 10A, CE approved
Rated Output Power (amp-hours)	AC 230V, 1000W Max, Pure Sine Wave Inverter (40Ah) 12V DC, 12A, 180W Max (40Ah) Two Double USB 5V, 2A, 10W Max (40Ah)
Operating Temperature	32ºF to 113ºF 0ºC to 45ºC
Dimensions	400 x 262 x 3257mm
Weight	16.5kg / 36.3lb
Certifications	CE: Low voltage directive 2006/95/EC, Electromagnetic Compatibility directive 2004/108/EC

SOLARPOD™ PRO 1000 CHARGING TIME (from fully discharged)	
Using 120-Watt Solar Panel	10 - 13 hours (in full sunlight)
Using AC Wall Charger (included)	6 hours

OPERATING TIME		
Appliance	**Solarpod™ 240**	**Solarpod™ Pro 1000**
USB Output Port		
iPhone*/Android** Phone recharge (6.48Wh)	36 times	145 times
iPad*/Tablet recharge (25Wh)	10 times	38 times
12V Output Port		
12V Fan (35W)	6.5 hours	25.5 hours
12V Cooler (50W)	4.5 hours	18 hours
12V Flat Screen 19" TV (70W)	3.2 hours	12.5 hours
AC Inverter Outlet		
LED Camp Lights (3W)	66 hours	272 hours
Small Refrigerator (40W)	5 hours	20 hours
Laptop battery (50Wh) recharge	4 times	16 times
LED Projector (60W)	3.3 hours	13.5 hours
32"LCD TV (90W)	2.2 hours	9 hours

**iPhone is a trademark of Apple Inc.*

***Android is a trademark of Google Inc.*

NOTE: Data is approximated and based on the maximum power consumption.

SOLARPOD™ PRO 1000 Fuse Reference Chart	
110V, 1000W Unit AC Fuse	8 Amp Fuse
230V, 1000W Unit AC Fuse	6A-6.3A Amp Fuse
12V DC Output Fuse	12 Amp Fuse